

# MANAGEMENT & ACCOUNTING REVIEW

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# Integrated Reporting and Financial Performance: Evidence from Malaysia

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## ABSTRACT

*Although the consciousness of Integrated Reporting (IR) is increasing within Malaysian companies, how IR creates value for their business is not completely understood. This paper attempts to investigate the potential contribution of IR implementation to the financial performance of the top 50 Malaysian public listed companies during the period of 2012 to 2015. The eight (8) IR content elements from the International Integrated Reporting Council (IIRC) framework are examined to predict the adoption rate of IR in relation to financial performance. This includes disclosure on organizational overview and external environment, governance, business model, risks and opportunities, strategy and resource allocation, performance, outlook, and basis of preparation and presentation. The data indicates that Malaysian public listed companies (PLCs) reported more than 50% for every content element, except Basis of Preparation and Presentation (CE8). Data analysis indicates that among the eight (8) content elements, four (4) of them, namely governance, business model, risks and opportunities, and performance disclosure, have significant positive impact on financial performances. The finding of this paper provides insight into the contribution of IR in affecting the maintenance of business resilience and competitiveness in a fluctuating market. Therefore, this paper provides a significant impetus for implementation of IR among the Malaysian companies.*

**Keywords:** *integrated reporting, international integrated reporting council, malaysian public listed companies, return on assets, return on equity*

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## INTRODUCTION

According to IIRC (2013), integrated thinking is the core element of IR. It takes into consideration of interdependencies and connectivity among the elements that will affect the ability of a company in forming its value over time, such as the use of strategies to react to external risks and environment, and the adaptation of the company business model to attain the original objectives. The concept of IR was first derived from the King Report on Corporate Governance (King III) for South Africa, in which all companies were required to have integrated thinking to connect their strategies, sustainability, risks and opportunities, together with governance considerations within their annual report. By implementing the IR framework, business communication has improved and the quality of corporate information available to investors has enhanced; thereby facilitating a more effective evaluation of a company (Ernst & Young, 2012). Thus, investors are able to make more informed decisions on their allocation of capital, which would then affect the company's strategy and its present and future performance.

In 2011, the blueprint of the Malaysian capital market development, known as Capital Market Masterplan 2 (CMP2), highlighted the issues on governance and shareholder protection. These two concerns are the primary purpose of IR. The 'Disclosures and Transparency' section in the blueprint of Securities Commission (SC) Malaysia on Corporate Governance mentioned that Malaysia is moving toward IR because the content of the section is similar to the underlying principle of IR, which encourages non-financial information disclosure (Gomes, 2012). According to the Malaysian Institute of Accountants (MIA) and the Association of Chartered Certified Accountants (ACCA) (2016), there is a significant growth and prominence on the concept of IR, which is largely accepted by Malaysian listed companies. However, the managing partner of PricewaterhouseCoopers (PwC) Malaysia - Sridharan (Sri) Nair argued that although there is an increase in the awareness of IR within Malaysian companies, disclosures were made merely to comply with statutory requirements rather than truly implement the idea of IR in their reporting system (The Star, 2014). Jamal and Ghani (2016) also found that real property companies in Malaysia have either non-compliance, low level of compliance, or moderate compliance. In other words, it indicated integrated reporting practices among Malaysia

companies is still weak. Therefore, there is still a long way in reaching a satisfactory level of integrated reporting.

As IR is a relatively new phenomenon, there are very few researches that have been done to discuss the impact of IR adoption on financial performance globally. Therefore, there is a research gap on the extent of the impact of IR on financial performance among Malaysian public listed companies (PLCs). This pioneering paper aims to provide companies with an insight to better understand the contribution of IR, especially in how it provides support to enhance financial feasibility as it is the most critical criteria for the survival of a company. Hence, it would provide a significant impetus for adoption of IR among Malaysian companies. The objectives of this paper are to examine: (1) current IR adoption using IIRC (2013) framework among Malaysian PLCs, (2) and its impact on Malaysian PLCs' financial performance. The following section discusses the theoretical perspective, followed by the literature review of this paper, and discusses the methodology that is used to conduct the research for this paper. The main finding and conclusion are presented in the last two sections.

## **PROBLEM STATEMENT**

Companies that only concentrate on the basics of financial reporting are not sufficient in this competitive and uncertain market environment. Investors will demand for more comprehensive picture in explaining the performance, strategies and perspective of their business. The critics found in financial reporting are the delay in the issuance of the reports, the lack of information regarding the risks, the past-oriented style of the reports, and the difficulty of looking for the most relevant information. Therefore, a company's financial report is always being questioned regarding the truth and fairness. This is because financial report does not include information on non-financial performance which has the ability to determine a company's long-term financial background (Eccles & Saltzman, 2011; Ghani & Said, 2010). Magarey (2012) also agreed that the information provided in the traditional annual report is not relevant enough as the information does not give a holistic picture and understanding of a company's business activities. Therefore, by implementing the IR framework, it improves business communication and enhances the quality of corporate information available

to investors; thereby enabling them to value a company effectively (Ernst & Young, 2012). Thus, investors are able to make more informed decision on their allocation of capital, which would then affect companies' strategy and performance both at present and in the future.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

Churet, RobecoSAM, and Eccles (2014) defined an integrated report as a comprehensive report, which combines financial and sustainability reporting. According to International Integrated Reporting Council (IIRC) (2011), Integrated Reporting (IR) is defined as a process which combines the important information about a company's performance, strategy, and governance in such a way that can represent social, environmental, and commercial context within which a company operates. IR was developed to relieve the criticism on the traditional reporting system which does not provide enough relevant information to give a holistic picture to expedite the understanding of a company's business activities (Magarey, 2012). With a globalised market, foreign investors particularly are demanding greater transparency of non-financial information that is valuable for decision making (Abeysekera, 2013; Eccles, Krzus, & Serafeim, 2011; Krzus, 2011; Cooper & Owen, 2011).

Despite increasing reporting and accountability facets, many companies merely use separate reports such as annual report and sustainability report to present their initiatives, which are not connected with its long term objectives. Therefore, IR is being developed to promote merging all different significant aspects of a company's reporting on a common platform (Abeysekera, 2013). IR is different from traditional reporting practices which focuses only on financial and commercial performance and lacks environmental and social information that are deemed important to the business (Kaya & Turegun, 2014).

### **Integrated Reporting Conceptual Framework**

The IR framework is formed to improve linkage between company's reported financial and non-financial information (Krzus, 2011; Oprüşor,



2014). Integrated report conceptual framework declared that all relevant types of resources used by companies for the value creation during the operating period ought to be taken into account and not merely focusing on financial capital (Cheng et al., 2014). For reporting format, the IR framework concentrates on just an individual aspect of reporting that will enable the users of the report to have a holistic view, which is a simultaneous view of interactions and implications of environmental, social, financial, and governance related activities (IIRC, 2011). The Framework comprises two parts, which are content elements and guiding principles. There are seven guiding principles which are materiality, reliability and completeness, conciseness, connectivity of information, strategic focus and future orientation, consistency and comparability, and stakeholder relationships. The integrated reports should contain issues that are material enough to affect company's value creation ability. Not only positive information needed to be taken into account but also negative information so that a reliable and complete picture of a company's performance can be provided to the stakeholders. Therefore, stakeholders get to compare the performance of the company over time or benchmark it with other companies through integrated report. According to IIRC (2013), IR framework is principle-based, and it is flexible for preparers as they can decide what information to be included and how the information should be reported in an integrated report (Poignant & Stensiö, 2014).

### **Theoretical Framework**

According to Jensen and Meckling (1976), agency relationship is established when agents, who are the managers, appointed by the principal, who is the owner of company, are given the authority to make decision on behalf of the principal. Agency problem usually occurs due to information asymmetry between owners and managers. Information asymmetry problem can be minimized through the disclosure of non-financial information as it creates alignment of interests between managers and minority interests (Frias-Aceituno et al., 2012). Additionally, Healy and Palepu (2001) mentioned that agency costs that arise due to exploitations by management can be reduced through disclosure of non-mandatory information. Therefore, agency theory can be applied to support IR disclosure, in the sense that managers who have better access to company's operations as well as private information are able to communicate with the market reliably and credibly in

order to maximize the company's value. Therefore, based on agency theory, IR disclosure can also be viewed as one of the monitoring mechanisms on the company's performance. The agency theory opines that conflicts between managers and shareholders can be reduced provided that the companies increase their disclosure. With increased disclosure, companies' desire to increase their value can be achieved (Lobo & Zhou, 2001).

Based on the voluntary disclosure theory, shareholders have no right to negotiate with the management and intervene in their management activities. This situation contributes to unequal power in a contractual relationship between two parties. Hence, some related accounting standards and Companies Acts stipulate the disclosure requirements to balance the power relation and focus on the concern of the investors and shareholders in their monetary interests in the companies. As a result, in current times, most of the companies' management tend to make voluntary disclosure to fulfil their stakeholders' needs (Gaa, 2010). Voluntary disclosure theory can be applied to support IR disclosure, in the sense that instead of disclosing information according to the rules, the Board of Directors can choose to disclose only information that is appropriate and relevant to the stakeholders, which actually represent the good faith of companies' activities (Abeysekera, 2008), particularly when trying to project a desired image to outsiders who may have an unfavourable perceived viewpoint of the company (Dye, 1985). Therefore, IR disclosure can also be viewed as one of the monitoring mechanisms used on measuring the company's performance and achieve the companies' desire to increase their value (Lobo & Zhou, 2001). In brief, voluntary disclosure is the cornerstone of reporting transparency and accountability of a company's activities on monetary and non-monetary issues.

### **Relationship between Voluntary Disclosure and Financial Performance**

Financial performance of companies relates to the various subjective measures of how well a company can use its equity capital or given assets from primary mode of operation to generate profit. With increasing pressure on a company's performance to deliver adequate returns on investment for shareholders, managers have been devising ways of improving financial performance to increase shareholders wealth (Worthington & Tracey, 2004).

According to Kasbuna, Teh, & Ong (2016), Return on Assets (ROA) and Return on Equity (ROE) are the most frequently used indicators of financial performance for Malaysian listed companies when related to annual report disclosure studies. ROA is used to assess the amount of net profit yield by a company through its capital assets investment and to measure the effectiveness of capital employed. In contrast, ROE is related to the amount of net profit generated from shareholders' investment in the company (Epps & Cereola, 2008).

Besides formulating company policies and monitoring the business activities, voluntary disclosure can also be considered as one of the strategic decisions which the board members are responsible for. Research contributed by Li and McConomy (1999) signified that large companies which have an outstanding and stable financial position are more willing to accept the new International Financial Reporting Standards (IFRS) on environmental disclosures voluntarily and are able to generate more profit with minimum compliance cost. This was supported by Botosan (2000) where the findings showed that companies with higher voluntarily disclosure information enjoys lower costs of capital. In a study that focused on the United States market, Cerf (1961) had found that the level of companies' voluntary disclosure of information has a positive linkage to their profitability level. Meek, Roberts, & Gray (1995) reported that, most of the companies somehow gain some competitive advantages if their information disclosed is more than expected regardless of it being strategic, financial or non-financial voluntary disclosures, as long as the disclosed information is strategically useful to the company's powerful stakeholders. Other past studies include studies that demonstrate the capability of voluntary disclosure minimising the uncertainty that revolves around companies' growth perspectives (Francis, Nanda, & Olsson, 2008; Dhaliwal et al., 2011), and enhancing companies' values which consequently stimulate share trading (Cheung et al., 2010; Hassan & Mohd-Saleh, 2010; Al-Akra & Jahangir-Ali, 2012). Such studies indicate that IR is an increasingly essential reporting trend that will replace the conventional corporate reporting, which would serve as an important instrument in supporting Malaysia's economic transformation (MIA, 2016).

## **Content Elements of Integrated Reporting**

The eight (8) content elements for adoption of IR based on IIRC framework includes organizational overview and external environment, governance, business model, risks and opportunities, strategy and resource allocation, performance, outlook, and basis of preparation and presentation (IIRC, 2013).

### **Organizational Overview and External Environment**

IIRC (2013) stated that IR provides an overview of the company and defines the circumstances that could impact the company's capability to generate both short and long term values. Covin and Slevin (1989), and Cano, Carillat, and Jaramillo (2004) mentioned that financial performance, growth and survival of companies are primarily affected by external environmental influences such as social, legal, political and economic factors. External business environment is the main aspect that companies take into consideration when it comes to decision making, as external business environment could either stimulate or restrain a company's performance, and could either assist or prevent a company from gaining a competitive advantage (Duncan, 1972). Therefore, the disclosure of external environment is essential for companies in order to make appropriate decision according to the circumstances of the external environment. The notion is inserted in Hypothesis 1, H1 and presented as follows:

**H1:** Greater disclosure on organizational overview and external environment is positively associated with the financial performance of Malaysian PLCs.

### **Governance**

In regards to governance element of IR, it was noted that company's governance system supports value creation, because it provides greater disclosure on decision making, leadership, and ethical influence on the use of capitals, board composition and diversity (IIRC, 2013). Most of the empirical studies proved that the company's corporate governance disclosure level is positively associated with better financial performance (Ehikioya, 2009; Gemmill & Thomas, 2004; Drobetz et al., 2003). Che-Haat, Rahman, and Mahenthiran (2008) investigated Malaysian companies'

corporate governance, transparency and performance, and they concluded that governance principles have strong correlation to company performance. A company with a high level of governance quality has better financial performance and market valuation compared to poorly governed company (Bebchuk et al., 2004; Brown & Caylor, 2005). The notion is inserted in Hypothesis 2, H2 and presented as follows:

**H2:** Greater disclosure on governance is positively associated with the financial performance of Malaysian PLCs.

### **Business Model**

According to the IIRC framework, IR defines company business model as a procedure of converting inputs into outputs via its business activities. The produced outcomes or outputs aim to achieve the strategic purposes established by companies and help to generate short to long term values (IIRC, 2013). Research conducted by PwC (2016) showed that business model reporting provides opportunities to drive future growth. The study also reported that investors wish to get more detailed information on business models to make their investment decision, and such decisions made by investors will have a significant effect on capital flow of the company, which in turn might affect its financial performance (PwC, 2016). The notion is inserted in Hypothesis 3, H3 and presented as follows:

**H3:** Greater disclosure on business model is positively associated with the financial performance of Malaysian PLCs.

### **Risks and Opportunities**

Risks are often being treated as corporate hazards, despite the fact that risks could be translated into significant opportunities for corporate improvement. This could assist companies in gaining new competitive advantages that in turn lead to short and long-term profitability. Bekefi, Epstein, and Yuthas (2008) explained that risks and opportunities are increasingly associated to strategy, financial performance and improved shareholder value, rather than merely avoidance and commitment. According to a research published by EY (2013), it stated that more mature risk management practices and disclosures are positively associated with

higher profitability. The extent of coordination and integration between risk, control and compliance roles has great influences on company's financial performance since it enables the company to allocate scarce resources in a more efficient manner (EY, 2013). The notion is inserted in Hypothesis 4, H4 and presented as follows:

**H4:** Greater disclosure on risks and opportunities is positively associated with the financial performance of Malaysian PLCs.

### **Strategy and Resource Allocation**

Integrated reporting should include: the company's strategies objectives over the short, medium and long term; strategies that are intended to be adopted to fulfil the strategic objectives; and the resource allocation plan to be used to execute the strategy (IIRC, 2013). Strategies are created by companies in order to have significant influences on their success and survival by optimising the allocation of scarce resources to improve the competitiveness of the business position while targeting superior performance (Grant, 1991; Mahoney & Pandian, 1992). There are numerous researches that had been conducted in this aspect, and the majority of them found a positive correlation between the strategic planning of the companies and their financial performance (Sapp & Seiler, 1981; Wood & LaForge, 1979). This notion is inserted in Hypothesis 5, H5, and presented as follows:

**H5:** Greater disclosure on strategy and resource allocation is positively associated with the financial performance of Malaysian PLCs.

### **Performance**

Based on IIRC (2013), IR has highlighted to encompass qualitative and quantitative information, both of which are equally essential to impact the company's capitals to measure how far the company can accomplish its targets and strategic objectives. Stakeholders also request the companies to include both financial and non-financial performance measures, in order for them to make better investment decision. These disclosures must be able to reflect the dimensions of companies' performance leading to better investment decisions, safeguarding the value of the contractual relationship between the stakeholders and the company. (Bowen et al., 1995; Karpoff &

Lott, 1993), since the performance disclosure will indicate the company's going concern status, reputation and integrity. Most of the previous researches showed that companies' performance disclosure is positively associated with the companies' financial performance (McGuire et al., 1988; Cormier & Magnan, 1999, 2003; Cormier et al., 2004). Aerts et al. (2006) claimed that there is a positive relationship between performance disclosure and profitability, where profitability is measured using ROA. The notion is inserted in Hypothesis 6, H6, and presented as follows:

**H6:** Greater disclosure on performance is positively associated with the financial performance of Malaysian PLCs.

## Outlook

IIRC (2013) claimed that the outlook element is present in an integrated report when the report continuously emphasizes the anticipated variations over time, and executes transparent and comprehensive analysis to provide useful information about the external environment that the company expects to confront over short, medium and long term. In addition, the outlook element in an integrated report should include companies' ability to deliver on the available opportunities (including the availability, quality and affordability of appropriate capitals), realistic appraisal of the companies' market positioning, and competitive landscape as well as analysis on relevant risks and opportunities. In brief, companies are required to analyse and respond appropriately to the changing environment that would have negative effect on the business and financial performance. The notion is inserted in Hypothesis 7, H7, and presented as follows:

**H7:** Greater disclosure on outlook is positively associated with the financial performance of Malaysian PLCs.

## Basis of Preparation and Presentation

In regards to basis of preparation and presentation element listed in IIRC framework, companies that implement IR are required to show its materiality determination process, description of the reporting boundary, and the significant frameworks that are applied to evaluate material matters (IIRC, 2013). IR is being viewed as integration of sustainability report and financial report as a single report (Churet et al., 2014). Bartlett (2012)

emphasised that reporting in addition to financial reporting, such as sustainability reporting, assists in increasing company's value and reduces the negative impacts during recession period. Bartlett (2012) further claimed that those companies with high quality sustainability reporting can draw more attention from investors and enhance market value. The notion is inserted in Hypothesis 8, H8, and presented as follows:

**H8:** Greater disclosure on basis of preparation and presentation is positively associated with the financial performance of Malaysian PLCs.

## RESEARCH METHOD

### Sample Selection

The research design used in this paper is descriptive and quantitative approach. According to the PwC Malaysia (2015) analysis report, 'Inspiring Trust through Insight', it showed that 50 Malaysian PLCs are implementing IR practices. Therefore, the target sample selected in this paper focuses on these top 50 Malaysian PLCs listed in Bursa Malaysia. However, 4 PLCs were excluded in this paper as they did not provide an annual report during the research period. The selected PLCs were observed for a four-year period from 2012 to 2015, making the total investigation amount 184 firm-years. Secondary data is the main resource used in this paper and is extracted from the sample Malaysian PLCs' annual report obtained from the Bursa Malaysia's official website.

### Data Collection and Data Filtering

Content analysis adopted in this paper is based on the IIRC disclosure framework. The purpose is to quantify the degree of IR disclosure content elements using the score range of 0 or 1 which represent minimum and maximum respectively. In order to ensure the data collected for independent variables are free from duplication, multicollinearity analysis is applied to filter the data. The independent variables are claimed to be free from multicollinearity issues when they fulfil the threshold for its tolerance value which is over 0.1, while Variance Inflation Factor (VIF) of independent variables are within the range of 1 to 10 (Hair et al., 2009; Gujarati & Porter, 2009).



## Measurement of Variables

### Independent Variable

The independent variables are the IR eight content elements stated in International IR Framework (IIRC, 2013). It is measured by IR Index (IRI), calculation of IRI is consistent to the Lipunga (2015), adopting the following formula:

$$IRI = \sum_{t=1} \frac{di}{n} = \frac{TS}{MS}$$

Where IRI = Integrated Reporting Index; = “1” if item is disclosed; “0” if item is not disclosed; = number of items; = Total Score; and = Expected Maximum Score.

According to IIRC (2013), the IR disclosure checklist of each specific content element, which comprises a total of 115 items, are used in this paper. The scoring approach applied to IR content elements disclosure is denominated as “1” if the company’s annual report had disclosed that particular item of IR content elements and “0” if otherwise.

### Dependent variable

The dependent variable of this paper is financial performance of Malaysian PLCs, which is measured by Return on Assets (ROA) and Return on Equity (ROE). Table below indicates the definition and measurement of dependent variables:

Dependent Variable	Definition	Measurement
ROA	Return on Assets	$\frac{Netincome}{Totalassets}$
ROE	Return on Equity	$\frac{Netincome}{Shareholder's\ Equity}$

Based on previous research that are concerned with annual report disclosure studies, ROA and ROE are the most frequently used indicators of financial performance of Malaysian listed companies (Kasbuna, Teh, & Ong, 2016). Profitability of companies is commonly represented by

ROA and ROE (Poignant & Stensiö, 2014). ROA and ROE are widely used accounting-based measures which are being treated as proxy for the measurement on company's financial performance. According to Branco and Rodrigues (2008), accounting-based measures such as ROA and ROE are adopted to acknowledge whole stakeholders, which are contrary to market-based measures that mainly focus on investors' views. Therefore, ROA and ROE are treated as the most appropriate indicator of financial performance in this paper.

## RESULTS

### Descriptive Statistics

Table 1 shows that the minimum value for ROA and ROE are negative 1% (-0.01) and negative 3% (-0.03) respectively. This indicates that within the sample Malaysian PLCs, some of them were making losses. Besides, the mean of ROA is 8.23%, while the mean of ROE is 24.95%. In regards to ROA, it represents in average, the Malaysian PLCs generated 8.23 cents of income for every one dollar of asset that the company hold. Meanwhile, ROE of 24.59% represents that the sample Malaysian PLCs generated 24.95 cents of income for every dollar of equity.

From Table 1, it can be concluded that the highest average disclosure among all the IR content elements is CE1- Organizational Overview and External Environment disclosure element, which generates the highest mean score of 75.41%. In contrast, the mean of CE8 - Basis of Preparation and Presentation is 36.80% only, which is the lowest average disclosure percentage. This represents that the top 46 Malaysian PLCs place less emphasis on CE8 disclosure. On average, all content elements have reported more than 50%, except CE8 which reports less than 50%; this section answers the first objective of this paper.

**Table 1: Descriptive Statistics of All Variables**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Return on Assets (ROA)	184	-.01	1.33	.0823	.14451
Return on Equity (ROE)	184	-.03	4.61	.2495	.56720
Organizational Overview and External Environment (CE1)	184	.25	1.00	.7541	.21433
Governance (CE2)	184	.17	.94	.5704	.17032
Business Model (CE3)	184	.25	.96	.5947	.16709
Risks and Opportunities (CE4)	184	.11	1.00	.5688	.23626
Strategy and Resource Allocation (CE5)	184	.14	1.00	.5897	.19104
Performance (CE6)	184	.22	.89	.5260	.16344
Outlook (CE7)	184	.21	1.00	.5907	.17778
Basis of preparation and presentation (CE8)	184	.14	.86	.3680	.18800
Valid N (listwise)	184				

### Pearson Correlation

Table 2 shows that there is a significant negative relationship between Outlook disclosure element (CE7) and return on equity (ROE) at significant level of 0.05 where correlation coefficient (r) is -0.161. Based on Pearson's correlation rule of thumb, the strength of correlation ( $r = -0.161$ ) between Outlook disclosure element and ROE is considered very weak since its coefficient size is below  $\pm 0.20$ . However, no significant relationship is found between CE7 with ROA. This indicated that the high disclosure of outlook element in a company's annual report will decrease ROE of the company. The correlation coefficient of other independent variables in relation to financial performance (ROA and ROE) is found to be not significant.

Table 2: Pearson Correlation Analysis Results

Variables	ROA	ROE	Organizational Overview and External Environment (CE1)	Governance (CE2)	Business Model (CE3)	Risks and Opportunities (CE4)	Strategy and Resource Allocation (CE5)	Performance (CE6)	Outlook (CE7)	Basis of preparation and presentation (CE8)
ROA	1									
ROE	.735"	1								
Organizational Overview and External Environment (CE1)	.011	-.064	1							
Governance (CE2)	.093	.080	.729"	1						
Business Model (CE3)	.118	.074	.735"	.729"	1					
Risks and Opportunities (CE4)	.034	-.002	.795"	.724"	.627"	1				
Strategy and Resource Allocation (CE5)	.025	-.112	.750"	.737"	.809"	.704"	1			
Performance (CE6)	.117	.116	.642"	.633"	.783"	.589"	.705"	1		
Outlook (CE7)	-.130	-.161*	.715"	.658"	.718"	.725"	.776"	.660"	1	
Basis of preparation and presentation (CE8)	-.039	-.124	.702"	.662"	.734"	.721"	.730"	.619"	.811"	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

## Collinearity Statistics

Multicollinearity statistics is applied to identify the multicollinearity issues between independent variables. In this paper, Table 3 demonstrates that all the independent variables' tolerance value is over 0.1, and the Variance Inflation Factor (VIF) of all independent variables is within the range of 1 to 10. This indicates that multicollinearity issue is not present in this paper (Hair et al., 2009; Gujarati & Porter, 2009).

**Table 3: Collinearity Statistics of Independent Variables**

	Model	Collinearity Statistics	
		Tolerance	VIF
1	Organizational Overview and External Environment	.262	3.810
	Governance	.332	3.011
	Business Model	.209	4.793
	Risks and Opportunities	.271	3.694
	Strategy and Resource Allocation	.237	4.223
	Performance	.359	2.786
	Outlook	.251	3.980
	Basis of preparation and presentation	.272	3.681

a. Dependent Variable: ROA and ROE

## Regression Analysis

Multiple regression is applied to test the second objective of this paper, it determines the impact of IR content elements on Malaysian PLCs' financial performance, which is shown as follows:

$$FP_{it} = \beta_0 + \beta_1 CE1_{it} + \beta_2 CE2_{it} + \beta_3 CE3_{it} + \beta_4 CE4_{it} + \beta_5 CE5_{it} + \beta_6 CE6_{it} + \beta_7 CE7_{it} + \beta_8 CE8_{it} + \mu_{it}$$

Where:  $i$  = the top 50 Malaysian PLCs,  $t$  = the financial years from 2012 to 2015,  $FP$  = Financial Performance measures (ROA and ROE),  $\beta_0$  = the intercept,  $\beta_1 CE1$  = Organizational Overview and External Environment,  $\beta_2 CE2$  = Governance,  $\beta_3 CE3$  = Business Model,  $\beta_4 CE4$  = Risks and Opportunities,  $\beta_5 CE5$  = Strategy and Resource Allocation,

$\beta_6CE6$  = Performance,  $\beta_7CE7$  = Outlook,  $\beta_8CE8$  = Basis of Preparation and Presentation, and  $\mu$  = error term.

Table 4, shows that the adjusted  $R^2$  for ROA and ROE are 0.104 and 0.194 respectively. This means that the IR content elements only accounted for 10.4% of the variance in ROA, and 19.4% variation in ROE can be explained by IR content elements. Hence, it is indicated that ROE has higher explanation power to the variation of financial performance compared to ROA. In addition, the p-value (Sig) for both of the ROA and ROE regression model ( $p = 0.001$ ;  $p = 0.000$ ) are less than  $\alpha = 0.05$  which indicates that they are statistically significant related to independent variables.

In relation to Governance disclosure element (CE2), it is positively related to ROE (p-value equals to 0.03 at significant level of  $\alpha = 0.05$ ). This is supported by Che-Haat et al. (2008) who investigated Malaysian companies in terms of their corporate governance, transparency and performance; the researchers concluded that governance principles have strong correlation to company performance. This means that higher governance disclosure communicates more integrity and ethics information, and it conveys clearer message and detail procedure, so that the stakeholders have a comprehensive insight on the company's current governance status (Boonlua & Phankasem, 2016).

Furthermore, a significant positive relationship exists between Business Model disclosure element (CE3) and financial performance (ROA and ROE). This significant positive association is advocated by PwC (2016) research which showed that business model reporting takes advantage of opportunities to drive future growth, and in turn improves the companies' financial performance. Moreover, PwC research also reported that investors wish to get more detailed information on business models to make their investment decision, and further stated that if management is unable to articulate their business model clearly, investors would decide not to invest in that company. Investment decision made by investors will have significant effect on capital flow of the company and in turn might affect its financial performance (PwC, 2016).

Risks and Opportunities disclosure element (CE4) is also positively related to ROE ( $B = 0.706$ ), at p-value equals to 0.022 which is less than  $\alpha =$

0.05. Although significant relationship is not found between CE4 and ROA, but a positive relationship exists between these two variables ( $B = 0.128$ ). This is proven by the findings of Bekefi et al. (2008) which explained that risks and opportunities actually assist in gaining new competitive advantages and in turn leads to short and long-term profitability. This means that risks and opportunities are increasingly associated with strategy, financial performance and improvement in shareholder value, instead of merely avoidance and commitment. Besides that, the extent of coordination and integration between risk, control and compliance roles have great influences on a company's financial performance, since they enable the company to make a better decision in allocating scarce resources efficiently (The Edge, 2014).

Moreover, a significant positive relationship is observed between Performance disclosure element (CE6) and ROE ( $B = 0.930$ ), where its p-value equals to 0.017 at the significant level of  $\alpha = 0.05$ . Positive relationship ( $B = 0.143$ ) is also found between CE6 and ROA even though it is not significant. This can be explained by the fact that the stakeholders request the company to include both financial and non-financial performance measures, and these disclosures must be capable of reflecting the dimensions of company performance in order to make better investment decision. This in turn might affect the profitability and capital flow of the company. Therefore, quality of performance disclosure has direct effect on the overall company's performance, since the performance disclosure will indicate the company's going concern status, reputation and integrity (Ogden & Watson, 1999).

**Table 4: Summary of Regression Results**

Variable		ROA	ROE
(Constant)	Beta	.068	.133
	Sig.	.158	.454
Organizational Overview and External Environment (CE1)	Beta	-.097	-.673
	Sig.	.293	.051
Governance (CE2)	Beta	.088	.840**
	Sig.	.392	.030
Business Model (CE3)	Beta	.279**	1.490***
	Sig.	.036	.003
Risks and Opportunities (CE4)	Beta	.128	.706**
	Sig.	.122	.022
Strategy and Resource Allocation (CE5)	Beta	-.011	-1.308***
	Sig.	.922	.001
Performance (CE6)	Beta	.143	.930**
	Sig.	.168	.017
Outlook (CE7)	Beta	-.432***	-1.023**
	Sig.	.000	.017
Basis of preparation and presentation (CE8)	Beta	-.041	-.699
	Sig.	.692	.071
Adj. R <sup>2</sup> (%)		10.4%	19.4%
Sig. (ANOVA)		0.001	0.000
N		184	184

Note: \* Significance at 0.10 level, \*\* Significance at 0.05 level, \*\*\* Significance at 0.01 level.

## CONCLUSION

This study was conducted to examine the top Malaysian PLCs' IR adoption level according to the IIRC framework, and the impact of IR on Malaysian PLCs' financial performance. The eight IR content elements, which include organizational overview and external environment, governance,



business model, risks and opportunities, strategy and resource allocation, performance, outlook, and basis of preparation and presentation, are adopted in this paper to explain the variation in financial performance. The analysis of the data indicates that on average, Malaysian PLCs have reported more than 50% for every content element, except for the Basis of Preparation and Presentation (CE8). The highest average disclosure among all the IR content elements is CE1- Organizational Overview and External Environment which generates the highest mean score of 75.41%. In contrast, the mean of CE8 - Basis of Preparation and Presentation is only 36.80%, which is the lowest average disclosure percentage. Regression analysis shows that the governance, business model, risks and opportunities, and performance disclosure element have significant positive impact on the financial performance of Malaysian PLCs.

As evidenced by the main findings of this paper, it is certain that implementation of IR will somehow improve the financial performance of companies. Therefore, the findings of this paper would provide a significant impetus for adoption of IR among the Malaysian companies. The findings of this paper would enable companies to gain insight on the contribution of IR, especially in terms of enhancing the financial aspect, which is the most critical criteria for the company survival. Also, this paper proves that integrated thinking that is promoted by IR is critical in maintaining business resilience and long-term competitiveness in a fluctuating market environment, and these are the keys that lead to superior long-term financial performance.

According to MIA (2016), IR is an increasingly essential reporting trend that will replace the conventional corporate reporting, for it serves as an important instrument in supporting Malaysia's economic transformation. It is highly possible that IR would become a mandatory responsibility for large organization with public accountability (Churet et al., 2014). Consequently, this has triggered SC to actively collaborate with several leading professional bodies, such as MIA, Bursa Malaysia, and ACCA Malaysia to advocate the IR adoption among Malaysian PLCs. In long-run, it aims to boost a stronger culture of sustainability within the corporate sector in Malaysia.

This paper is subject to a few limitations. Firstly, the investigation period is confined to 2012 to 2015. This is because IR implementation

framework was issued on December 2013 although the concept of IR had been initially introduced in year 2010. In addition, the sample employed for this paper focuses only on the top 50 Malaysian PLCs. Consequently, the findings on this relatively small sample size might not be able to generalize to the entire population of Malaysian PLCs. Future related research on the adoption status, internal value creation, or challenges of IR would be meaningful for PLCs to understand how to utilise IR to continue grow and stay competitive.

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